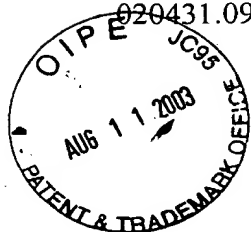ATTORNEY DOCKET ~~020431~~.0988

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## In The United States Patent and Trademark Office
## On Appeal From The Examiner To The Board
## of Patent Appeals and Interferences

In re Application of:    Harri (nmi) Rajala et al.

Serial No.:    09/551,899

Filing Date:    April 19, 2000

Group Art Unit:    2173

Examiner:    Namitha Pillai

Title:    *Method and Apparatus for Supporting Multiple Alternative Graphical User Interfaces in Computer-Moderated Electronic Commerce*

**MAIL STOP: APPEAL BRIEF**

Commissioner For Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

## Appeal Brief

Appellants have appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner mailed April 10, 2003, finally rejecting Claims 1, 2, 4-6, 8, and 10-19. Appellants filed a Notice of Appeal on June 10, 2003. Appellants respectfully submit this Appeal Brief, in triplicate, with the statutory fee of $320.00.

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## Real Party In Interest

This Application is currently owned by i2 Technologies US, Inc., as indicated by an Assignment recorded on September 25, 2000 in the Assignment Records of the United States Patent and Trademark Office at Reel 011141, Frames 0483-0486.

## Related Appeals and Interferences

There are no known appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision regarding this Appeal.

## Status of Claims

Claims 1, 2, 4-6, 8, and 10-19 are pending in this Application, stand rejected pursuant to a final Office Action mailed April 10, 2003 and are all presented for appeal. All pending claims are shown in Appendix A.

## Status of Amendments

All amendments submitted by Appellants have been entered by the Examiner, including all amendments submitted by Appellants in response to the final Office Action mailed April 10, 2003.

## Summary of Invention

In particular embodiments of the present invention, a sales business object server of a seller includes modules that enable electronic-commerce dialogues between the seller and multiple buyers. (Page 10, Line 1, through Page 11, Line 17). To enable an electronic-commerce dialogue between the seller and a buyer, the sales business object server reads data associated with the electronic-commerce transaction from a sales data server. (Page 10, Lines 4-6). The sales business object server also writes data associated with the electronic-commerce transaction to a sales data server. (Page 10, Lines 4-6).

During the electronic-commerce dialogue between the seller and the buyer, the sales business object server may present one or more graphical user interfaces (GUIs) to the buyer that enable the buyer to specify an order, get information regarding the order (such as an end

price), and communicate the order to the seller. (Page 10, Lines 11-25; Page 15, Lines 3-19). Rendering engines maintained at the sales data server may generate the GUIs. (Page 16, Lines 10-11). As an example, a JAVA rendering engine maintained at the sales data server may generate GUIs that are JAVA applets, an HTML rendering engine maintained at the sales data server may generate HTML GUIs, and a C++ rendering engine maintained at the sales data server may generate C++ GUIs. (Page 16, Lines 11-19). The JAVA rendering engine may be used to generate GUIs for electronic-commerce dialogues over higher bandwidth communication channels (such as LANs and high-speed WANs), and the HTML rendering engine may be used to generate GUIs for electronic-commerce dialogues over lower bandwidth communication channels (such as low-speed WANs and the Internet). (Page 14, Lines 6-9 and 17-19). The GUIs generated by the rendering engines may have similar content, layout, and series of dialogue boxes, even though generated in different programming languages. (Page 16, Lines 16-19; Page 17, Lines 8-10). All the rendering engines maintained at the sales data server may use the same metadata to generate GUIs. (Page 14, Line 24, through Page 15, Line 2; Page 18, Lines 12-15). As a result, the seller need not maintain multiple parallel databases for the rendering engines, which may reduce costs and problems associated with inconsistency among parallel databases. (Page 18, Line 21, through Page 19, Line 2).

When a buyer accesses the sales business object server to have an electronic-commerce dialogue with the seller, the sales business object server selects a rendering engine to generate a GUI for the electronic-commerce dialogue according to the mode and channel of communication between the buyer and the sales business object server. (Page 14, Line 24, through Page 15, Line 2; Page 17, Lines 23-25; Page 20, Lines 6-13). The selected rendering engine then accesses metadata maintained at the sales data server to generate the GUI. (Page 18, Lines 11-23). When the buyer specifies an order or provides other input using the GUI, the sales business object server writes the input to the sales data server for handling by the seller. (Page 19, Lines 6-9).

## Statement of Issues

1.    Are Claims 14-16 directed to statutory subject matter under 35 U.S.C. § 101?

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2.      Does U.S. Patent No. 6,330,007 to Isreal et al. (*"Isreal"*), in combination with U.S. Patent No. 6,104,392 to Shaw et al. (*"Shaw"*), render Claims 1-2, 4-6, 8, and 10-19 obvious under 35 U.S.C. § 103(a)?

## Grouping of Claims

To reduce the burden on the Board, all pending claims may be grouped together as a single group.

## Argument

The rejection of Claims 14-16 under 35 U.S.C. § 101 as being directed to nonstatutory subject matter is improper and should be withdrawn. The rejection of Claims 1-2, 4-6, 8, and 10-19 under 35 U.S.C. § 103(a) as being unpatentable over *Isreal* in light of *Shaw* is also improper and should also be withdrawn.

## I.      Claims 14-16 are Directed to Statutory Subject Matter

Claims 14-16 stand rejected under 35 U.S.C. § 101 as being directed to nonstatutory subject matter. Appellants respectfully disagree.

Under 35 U.S.C. § 101, "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101 § 101 (2002). With respect to claims directed to software, the M.P.E.P. states that "a claimed computer-readable medium encoded with a computer program . . . is . . . statutory." M.P.E.P. ch. 2106(IV)(B)(1)(a) (Rev. 1, Feb. 2003).

Independent Claim 14 recites "software embodied in computer-readable media and when executed operable to" provide certain recited functionality. Dependent Claims 15-16 each recite "[t]he software Claim 15." Appellants respectfully submit that Claims 14-16 are clearly directed to statutory subject matter under 35 U.S.C. § 101.

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## II.    Claims 1, 2, 4-6, 8, and 10-19 are Allowable Over the Proposed *Isreal-Shaw* Combination

### A.    Overview

Claims 1, 2, 4-6, 8, and 10-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Isreal* in view of *Shaw*. A copy of *Isreal* is provided in Appendix B. A copy of *Shaw* is provided in Appendix C. Appellants respectfully submit that, even assuming for the sake of argument that *Isreal* could be properly combined with *Shaw*, the proposed *Isreal-Shaw* combination would still fail to disclose, teach, or suggest limitations recited in Appellants' claims.

### B.    Standard

A rejection under 35 U.S.C. § 103(a) is proper only if "the differences between the subject matter sought to be patented and the prior art are such that the subject matter *as a whole* would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. § 103(a) (emphasis added). As this Board has noted, "to support the conclusion that the claimed combination is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed combination or the examiner must present a convincing line of reasoning . . . why the . . . claimed [combination would] have been obvious in light of the teachings of the references." *Ex Parte Clapp*, 227 U.S.P.Q. 972, 973 (B.P.A.I. 1985).

### C.    Isreal

*Isreal* discloses a tool for prototyping and specifying a graphical user-interface having dynamic keys. (Column 2, Lines 13-16). The tool allows a user-interface designer to enter design specifications into forms. (Column 2, Lines 19-21). Once the specifications have been entered, an end user can immediately run the specification as an interactive prototype. (Column 2, Lines 23-27).

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*Isreal* also discloses several screens that the tool presents to the user-interface designer. One screen is a splash screen that shows title and copyright information and provides access to the prototyping and specification tool. (Column 9, Lines 22-24). Another screen is a setup dialogue box screen that allows the user to open an existing database, create a new database, and designate the locations of bit map directory folders. (Column 9, Lines 38-40). Another screen is a bit map folder dialogue box screen that allows the user to designate the folder that contains a particular type of bit map used by the prototyping tool. (Column 9, Line 66, through Column 10, Line 2). Another screen is a user screen that displays and allows interaction with the current screen in the prototyping tool being prototyped. (Column 10, Lines 12-15).

Thus, *Isreal* merely discloses a tool for designing various graphical user interfaces.

### D.    *Shaw*

*Shaw* discloses a client-server system that includes clients connected, via network connections, to servers providing application and database services. (Column 1, Lines 31-37). Different clients in the system have different capabilities, and different network connections have different bandwidths and latencies. (Column 1, Lines 31-37).

*Shaw* also discloses a network that includes three tiers. (Column 5, Lines 40-41). The first tier includes clients that interface with the second tier. (Column 5, Lines 44-49). The second tier includes a UAP server that has various engines and interfaces with the first and third tiers. (Column 5, Lines 55-57). Display engines are stored at the UAP server and downloaded to clients when needed. (Column 7, Lines 6-8). The display engines are preferably JAVA applets. (Column 8, Lines 24-25). Because the display engines are small in size (around 200 kilobytes), the display engines are quick to download, even over low-bandwidth networks. (Column 8, Lines 25-29). The third tier includes various application servers. (Column 5, Line 60, through Column 6, Line 1). A client request is routed to an appropriate interface of the UAP server, and the UAP server obtains and communicates to the client the requested service or data from an appropriate application server. (Column 6, Lines 19-25).

The UAP server includes multiple engines that provide a central point of access to the application server. (Column 7, Lines 29-34). Protocol engines and display engines at the UAP server provide emulation needed to enable particular clients to interact with particular applications maintained at the application servers. (Column 8, Lines 1-3). An application at an application server has a corresponding protocol engine and a corresponding display engine. (Column 8, Lines 3-6). When the protocol and display engines are invoked, the display engine is downloaded to a client. To provide emulation between the application and the client, the protocol engine acts as the client to the application. (Column 8, Lines 7-10). Because the protocol engine understands the standard protocol used by the application, the protocol engine is able to translate standard protocol requests from the application into adaptive Internet Protocol requests displayable at the client. (Column 8, Lines 14-17). According to *Shaw*, using this method, existing applications may continue to run at servers they are currently installed at, untouched and without any reengineering or rewrites needed to function with the client. (Column 8, Lines 17-21).

Thus, *Shaw* merely discloses multiple display engines that are all designed for quick downloading over low-bandwidth networks and are each linked to a particular application in a one-to-one manner. In *Shaw*, a client communicates a request to a particular application at a UAP server and, in response to the request, receives the display engine corresponding to the particular application.

### E.    *Claims 1, 2, 4-6, 8, and 10-19*

Appellants respectfully submit that Claims 1, 2, 4-6, 8, and 10-19 are allowable over the proposed *Isreal-Shaw* combination.

Independent Claim 1 of this Application recites:

> A system for communicating commercial transaction information between a Seller and a plurality of Buyers over a distributed data processing system, comprising:

a single database for maintaining a plurality of user interface metadata elements including at least component identifications and component properties;

a visual rule model for configuring a plurality of graphical user interface dialog pages utilizing the metadata and a plurality of dialog rules;

a plurality of rendering engines each adapted to respond to commands from the visual rule model and each further operable to construct a plurality of graphical user interface screens in a different language; and

a dialog manager operable to select one of the plurality of rendering engines for each Buyer based on a bandwidth of the Buyer's communication channel and further operable to pass at least the metadata elements to the selected rendering engine in order to dynamically construct a plurality of graphical user interface screens in the distributed data processing systems in order to allow the communication of information between the Seller and the plurality of Buyers necessary related to a potential commercial transaction.

Independent Claims 5, 10, 14, and 17 recite certain substantially similar limitations.

Even assuming, for the sake of argument, that *Isreal* could be properly combined with *Shaw*, the proposed *Isreal-Shaw* combination would still fail to disclose, teach or suggest limitations recited in independent Claim 1.

The Examiner acknowledges that *Isreal* does not disclose, teach, or suggest *a plurality of rendering engines each adapted to respond to commands from the visual rule model and each further operable to construct a plurality of graphical user interface screens in a different language*, as recited in independent Claim 1. In addition, because *Isreal* does not disclose the rendering engines recited in independent Claim 1, *Isreal* also necessarily fails to disclose, teach, or suggest *a dialog manager operable to select one of the plurality of rendering engines for each Buyer based on a bandwidth of the Buyer's communication channel*, as further recited in independent Claim 1.

To account for these acknowledged deficiencies of *Isreal*, the Examiner relies on *Shaw*. However, *Shaw* does not disclose, teach, or suggest *a dialog manager operable to select one of the plurality of rendering engines for each Buyer based on a bandwidth of the Buyer's communication channel*, as recited in independent Claim 1. *Shaw* merely discloses a display engine being downloaded to a client. Even assuming for the sake of argument that a

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display engine of *Shaw* could be properly considered a rendering engine and that a client of *Shaw* could be properly considered a buyer, *Shaw* would still fail to disclose, teach, or suggest that the display engine is selected according to the bandwidth of the client's communication channel.

Instead, as *Shaw* clearly discloses, the display engine corresponds to an application. When the client communicates a request to the application, the display engine is simply downloaded to the client. Even if the display engine could be properly considered as being selected, the selection would be made according to the application requested by the client, not the bandwidth of the client's communication channel. Moreover, because all the display engines of *Shaw* are quick to download over low-bandwidth networks, selecting display engines according to the bandwidth of the client's communication channel would waste client-server system resources. Therefore, *Shaw* at least implicitly teaches away from a display engine being selected according to the bandwidth of the client's communication channel.

For at least this reason, Appellants respectfully request reconsideration and allowance of independent Claims 1, 5, 10, 14, and 17 and all their dependent claims.

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## Conclusion

Appellants have demonstrated that the present invention, as claimed, is clearly distinguishable over the prior art cited by the Examiner. Therefore, Appellants respectfully request the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all pending claims.

Appellants have enclosed a check in the amount of $320.00 for this Appeal Brief. Appellants believe no additional fees are due. However, the Commissioner is hereby authorized to charge any additional fees and credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
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**Date:** August 11, 2003

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Customer Number:  **05073**

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## Appendix A

1.     A system for communicating commercial transaction information between a Seller and a plurality of Buyers over a distributed data processing system, comprising:

a single database for maintaining a plurality of user interface metadata elements including at least component identifications and component properties;

a visual rule model for configuring a plurality of graphical user interface dialog pages utilizing the metadata and a plurality of dialog rules;

a plurality of rendering engines each adapted to respond to commands from the visual rule model and each further operable to construct a plurality of graphical user interface screens in a different language; and

a dialog manager operable to select one of the plurality of rendering engines for each Buyer based on a bandwidth of the Buyer's communication channel and further operable to pass at least the metadata elements to the selected rendering engine in order to dynamically construct a plurality of graphical user interface screens in the distributed data processing systems in order to allow the communication of information between the Seller and the plurality of Buyers necessary related to a potential commercial transaction.

2.     The system of Claim 1, wherein the language of one rendering engine comprises hyper-text mark-up language.

3.     **(Cancelled)**

3  ~~4.~~     The system of Claim ~~13~~ 10, wherein the relatively low bandwidth communication channel comprises an Internet connection.

4  ~~5.~~     A method of conducting computer-moderated commercial transactions, comprising:

providing a single database which contains product metadata relating to objects of computer-moderated commerce;

providing a plurality of alternative rendering engines for constructing a plurality of graphical user interface screens relating to the objects of computer-moderated commerce;

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providing a dialog manager which can be utilized to provide commands to the plurality of alternative rendering engines;

establishing a relatively low bandwidth communication channel with a customer;

selecting one of the plurality of rendering engines based on the bandwidth of the customer's communication channel; and

during interaction with the customer in a computer-moderated commercial transaction, utilizing the dialog manager to pass the product metadata from the single database to the selected rendering engine to dynamically construct a series of graphical user interface screens which include active and passive portions for presenting a plurality of product options to the customer and to record the customer's selection.

5 6. The method of Claim 4, wherein one of the plurality of rendering engines comprises a hyper-text mark-up rendering engine.


7.     (Cancelled)


6 8. The method of Claim 4, wherein the relatively low bandwidth communication channel comprises an Internet connection.


9.     (Cancelled)


7 10. A method of conducting a computer-moderated commercial transaction between a Seller and a Buyer, comprising:

providing a distributed data processing system including a relatively low-bandwidth communication channel between the Seller and Buyer;

providing a single database under the control of the Seller which contains metadata related to the subject of the commercial transaction;

providing a plurality of alternative rendering engines each of which is responsive to rendering commands which is in a different programming language;

providing a dialog manager program under the control of the Seller which moderates the passing of metadata and rendered objects over the distributed data processing system to the Buyer in the form of graphical user interface screens;

selecting one of the plurality of rendering engines based on the bandwidth of the communications channel;

passing transaction information to the Buyer over the relatively low-bandwidth communication channel of the distributed data processing system in the form of graphical user interface screens which confine particular relevant portions of the metadata and the output of the selected rendering engine; and

receiving transaction selections from the Buyer over the relatively low-bandwidth communication channel of the distributed data processing system through monitoring of interaction between the Buyer and the graphical user interface screens.

8  11.  The method of Claim 10, wherein the relatively low-bandwidth communication channel comprises an Internet connection.

9  12.  The method of Claim 10, wherein one of the programming languages comprises a hyper-text mark-up language.

10  13.  **(Previously Added)** The system according to Claim 1, wherein one communication channel comprises a relatively low bandwidth communication channel.

11 14. Software for computer-moderated commercial transactions, the software embodied in computer-readable media and when executed operable to:

provide a single database which contains product metadata relating to objects of computer-moderated commerce;

provide a plurality of alternative rendering engines for constructing a plurality of graphical user interface screens relating to the objects of computer-moderated commerce;

provide a dialog manager which can be utilized to provide commands to the plurality of alternative rendering engines;

establish a relatively low bandwidth communication channel with a customer;

select one of the plurality of rendering engines based on the bandwidth of the customer's communication channel; and

during interaction with the customer in a computer-moderated commercial transaction, utilize the dialog manager to pass the product metadata from the single database to the selected rendering engine to dynamically construct a series of graphical user interface screens which include active and passive portions for presenting a plurality of product options to the customer and to record the customer's selection.

12 15. The software of Claim 11 14, wherein one of the plurality of rendering engines comprises a hyper-text mark-up rendering engine.

13 16. The software of Claim 11 14, wherein the relatively low bandwidth communication channel comprises an Internet connection.

14  17. A system for computer-moderated commercial transactions, comprising:

means for providing a single database which contains product metadata relating to objects of computer-moderated commerce;

means for providing a plurality of alternative rendering engines for constructing a plurality of graphical user interface screens relating to the objects of computer-moderated commerce;

means for providing a dialog manager which can be utilized to provide commands to the plurality of alternative rendering engines;

means for establishing a relatively low bandwidth communication channel with a customer;

means for selecting one of the plurality of rendering engines based on the bandwidth of the customer's communication channel; and

means for, during interaction with the customer in a computer-moderated commercial transaction, utilizing the dialog manager to pass the product metadata from the single database to the selected rendering engine to dynamically construct a series of graphical user interface screens which include active and passive portions for presenting a plurality of product options to the customer and to record the customer's selection.

15  18. The system of Claim 17, wherein one of the plurality of rendering engines comprises a hyper-text mark-up rendering engine.

16  19. The system of Claim 17, wherein the relatively low bandwidth communication channel comprises an Internet connection.

## Appendix B